

Advanced Multifunctional Materials for Soldier Support and Protection

\$5,000,000

University of Maine

Orono, ME

Funding would be used for development of overhead protection systems for shelters; integration of photovoltaic solar panels into ballistic panels for remote electrical power generation and overhead protection; development of lightweight conformal solar cell technology for soft sided shelters such as airbeam tents; and development of light weight, high performance panels suitable for overhead ballistic protection and new threat levels.

Cellulose Nanocomposites for Army Infrastructure and Troop Protection

\$5,000,000

University of Maine

Orono, ME

Funding would provide for the development of low-cost, high-performance cellulose nanocomposites.

Cellulosic Hydro-Treated Renewable Jet Fuels

\$3,000,000

University of Maine

Orono, ME

Funding would be used to develop integrated forest products refinery processes and technologies to efficiently and cost-effectively replace petroleum-derived JP-8 with woody biomass alternatives to support Department of Defense compliance with governing energy policy acts and executive orders.

Chemical/Biological Infrared Detection System

\$5,000,000

Orono Spectral Solutions, Inc.

Orono, ME

Funding would be used to continue the development of a functional prototype of a miniaturized Chemical/Biological Infrared Detection System.

Civil Air Patrol

\$4,500,000
Civil Air Patrol
Nationwide

Funding would restore \$4,500,000 to the Civil Air Patrol's (CAP) FY2011 O&M budget, which was cut by the President. The funds allow CAP to conduct essential programs at the same level of service as in FY2010. Restoration of these funds will maintain CAP's readiness by providing the needed resources for its essential missions.

Conformal Coded Chip Capacitor

\$1,900,000
DM Technologies, LLC
Sanford, ME

Funding would develop and produce a conformal coated chip capacitor, which is a critical technology item for high growth defense applications such as radar systems for Joint Strike Fighter, GATOR and the Patriot Missile system.

Design Optimization of Composite High-Speed Boats using Advanced Composite Manufacturing and Non-Destructive Evaluation

\$2,000,000
Hodgdon Defense Composites, LLC
Portland, ME

Funding would be used to conduct R&D to reduce structural weight for high-speed composite craft through the use of lightweight composite materials. This program will build off the expertise gained in the successful Reliability of Composite Program, MAKO composites craft program, and workforce development programs in Maine to address new requirements for Special Operations Craft.

F-16 Block 42 Engine Upgrades

\$33,800,000
Pratt & Whitney/United Technologies
North Berwick, ME

Funding would be used to procure six more engines, completing the programmed buy of 53 installed and spare engines and fully equipping both ANG fighter wings. The engine upgrade provides the F-16 Block 42 with a 20 percent improvement in thrust along with significantly improved durability, reliability and survivability. The direct impact on the Warfighter is better payload, range, and lower life cycle cost. This project is mutually beneficial to U.S. Military and over 1500 residents of Maine who have jobs at the North Berwick plant where the engine components are built.

F-119 Engine Spares

\$160,000,000

Pratt & Whitney/United Technologies
North Berwick, ME

Funding would be used to acquire additional spare F-119 engines for the Air Force. Additional spare engine orders need to be procured in FY11 prior to the F-119 production shutdown. Procuring fifteen spare F-119 engines in FY11 will extend F-119 production to FY12 and provide sufficient time for the PRS model to rerun and requirement refined spare requirement to be determined. This project is mutually beneficial to the military and over 1,500 residents of Maine who have jobs at the North Berwick plant where the engine components are built.

Formable Textile for Complex Shaped Aerospace

\$2,000,000

Pepin Associates, Inc.
Greenville, ME

Funding would be used to provide infrastructure to support production of light-weight composite structural components.

Fuel Efficient, High Specific Power Free Piston Engine for USSVs

\$3,000,000

Applied Thermal Sciences
Sanford, ME

Funding would enable further development of the HiPerTEC free-piston engine to demonstrate a 50 percent fuel efficiency increase over today's diesel engines, along with a 10 times increase in specific power to meet the Navy need of maximizing range and endurance, to significantly enhance platform performance and mission capabilities.

Hybrid Heavy Lift Transport

\$2,500,000

Integrated Systems Solutions, Inc. (ISSI)
Limestone, ME/California, MD

Funding will be used to support a U.S. Navy research and development project to engineer, design and test key components and achieve a Critical Design Review of a very large hybrid aircraft that could be used as a heavy lift transport in wartime. The project will help to address the U.S. military's future airlift shortfall by providing a highly-efficient hybrid airlifter that will be able to transport a complete combat force (troops, vehicles, helicopters, and supplies) great distances without loss of unit cohesion or physical readiness to fight.

Installation Management Command, Non-Tactical Vehicle, Service Life Extension Program

\$5,000,000

Maine Military Authority
Limestone, ME

Funding would be used for a non-tactical vehicle refurbishment program facilitated by the Maine Military Authority (MMA) and Installation Management Command (IMCOM).

LGX High Temperature Acoustic Wave Sensors

\$3,000,000

University of Maine
Orono, ME

Funding would provide for the continued investigation of fundamental sensor materials and device design concepts as well as demonstrate functional prototypes of acoustic wave sensors that will be tested under realistic high temperature operating Air Force environments.

M2 50 Cal Machine Gun MODS

\$6,000,000

General Dynamics Armament and Technical Products (GDATP)
Saco, ME

Funding would provide an additional \$11,000,000 for procurement of M2A1 Quick Change Barrel (QCB) Kits to support elimination of operational safety concerns and enhance the capabilities and effectiveness of the M2 Machine Gun.

Maine Institute for Human Genetics and Health

\$4,370,000

Eastern Maine Health Systems
Brewer, ME

Funding would be used for researching several priority areas of interest to the Department of Defense, including better understanding health risks and discovering diagnostics to improve veteran care and understand active duty risks.

Mission Helmet Recording System

\$3,500,000

Wilcox Industries Corporation
Newington, NH

Funding would be used to procure EOD-Mission Helmet Record Systems to provide a superior capability for the Explosive Ordnance Disposal community, the Joint Improvised Explosive Device Defeat Organization (JIEDDO), the Combined Explosive Exploitation Cell (CEXC), and the National Intelligence Community.

MK47 MOD 0 Advanced Lightweight Grenade Launcher (ALGL) - USSOCOM

\$5,000,000

General Dynamics Armament and Technical Products (GDATP)
Saco, ME

Funding would provide an additional \$8,000,000 for continued production of MK47 ALGL for key USSOCOM units.

New England Defense Manufacturing Supply Chain Initiative

\$5,000,000

Maine Manufacturing Extension Partnership
Augusta, ME

Funding would support the New England Defense Manufacturing Supply Chain Initiative, which will create or retain up to 200 defense manufacturing jobs in New England.

Protection Using Ballistic Core Technology

\$4,200,000

Tex Tech Industries
North Monmouth, ME

Funding would be used to enhance protection against fragmentation from blasts. The ballistic material provides improved protection for U.S. Soldiers, law enforcement personnel, vehicles, military aviation fuel tanks and buildings.

Random Obfuscating Compiler Anti-Tamper Software

\$2,500,000

Angel Secure Network

Orono, ME

Funding would provide for further development of anti-tamper software for use in operational Department of Defense systems.

Rapid Data Management System (RDMS)

\$750,000

Global Relief Technologies, Inc.

Orono, ME/Portsmouth, NH

Funding would be used to improve the Rapid Data Management system, which is an integrated solution combining near real-time field reports, state-of-the-art mobile computing systems, satellite communications and a web-based central operations center that provides disaster response managers with the information required to coordinate a successful response.

Real Time Test Monitoring of Chemical Agents, Chemical Agent Stimulants and Toxic Industrial Chemicals

\$1,000,000

Scientific Research and Development, Inc.

Orono, ME

Funding would be used to advance Department of Defense individual and collective protection and decontamination initiatives. Funding would permit the completion of an on-going R&D effort to finalize development of a next-generation chemical monitoring system and allow the fielding of a complete monitoring system at the Dugway Proving Ground.

Regenerative Medicine Research

\$2,200,000

Mount Desert Island Biological Laboratory

Salisbury Cove, ME

Funding would be used to expand Mount Desert Island Biological Laboratory's Department of Defense sponsored research and development activities within its Center for Regenerative Biology and Medicine. The purpose of these research activities is to further understand and control the mechanisms involved in limb, neuronal and tissue regeneration by studying primitive organisms that have the ability to regenerate their limbs during adulthood. These studies will provide insights into why humans have lost this capacity, and improve clinical treatments for service personnel suffering from combat-related injuries.

Research Airship

\$5,000,000
SAIC/Telford
Limestone, ME

Funding would be used for a pilot optional lighter than air research airship platform to conduct scientific research to support NAVSEA Science & Technology programs and the Office of Naval Research. The LTA airship research platform provides a lower cost option for a variety of types of research as well as providing a slow stable platform advantageous to conducting certain types of research that would otherwise be unable to be performed.

RipTide Amphibious UGV Weaponization

\$4,000,000
Howe and Howe Technologies
Waterboro, ME

Funding would be used to develop a new generation of amphibious assault vehicles.

Smart Valve Automatic Fire Suppression System

\$4,000,000
Portland Valve
South Portland, ME

Funding would be used to procure and install Smart Valves to realize an Automatic Fire Suppression System on DDG-51 class of ships as part of the DDG modernization program.

Warfighter Interoperability Technologies

\$1,800,000
Technology Systems, Inc.
Brunswick, ME

Funding would be used for the adaptation of the Warfighter Interoperability Technologies Program. There are currently situational and marine navigation systems aboard small Navy Expeditionary ships which have facilitated situational awareness and enhanced operator capabilities by providing a common operation picture. This project will extend the capability to provide COP to new domains including dismounted personnel and new platforms and systems.

The following requests are to maintain the FY11 President's Budget request:

DDG-1000 Destroyer Shipbuilding Program

Support the President's Budget
General Dynamics Bath Iron Works
Bath, ME

Funding would support the President's budget request for end costs to complete program funding for the three Navy DDG-1000 destroyers funded in prior fiscal years. The DDG-1000 Class ships will bring major advances in warfighting capability to the Fleet and will support the transfer of important new technologies to other Navy programs.

DDG-51 Destroyer Shipbuilding Program

Support the President's Budget
General Dynamics Bath Iron Works
Bath, ME

Funding would support the President's budget request for the procurement of two FY11 DDG-51 AEGIS Destroyers and Advance Procurement (AP) funding toward the procurement of additional DDG-51s planned to be procured between FY12 and FY15.

Lightweight .50 Caliber Machine Gun (XM806)

Support the President's Budget
General Dynamics Armament and Technical Products (GDATP)
Saco, ME

Funding would maintain the FY2011 President's Budget request of \$18.941 million to procure a quantity of 350 XM806 Lightweight .50 Caliber Machine Guns.

Machine Gun, Cal .50 M2 ROLL

Support the President's Budget

General Dynamics Armament and Technical Products (GDATP)
Saco, ME

Funding would maintain the President's budget request of \$79.486 million to procure M2 .50 Caliber Machine Guns.

Consolidation of structural shops

\$17,400,000
Portsmouth Naval Shipyard, Kittery, Maine

This project will consolidate Structural Shop operations located throughout Portsmouth Naval Shipyard. The existing Building 92, Structural Shop, will be modernized and a new annex of 51,484 SF will be constructed between Building 92 and Building 76, (Forge and Heat Treat Shop). The Annex construction will maintain the north and south double gable ends of Building 76 due to their Historical significance. This addition is needed to incorporate the consolidation of the Structural Shop operations which are located throughout the Shipyard. This project modernizes the existing steel fabrication facility and constructs an annex to this facility to further consolidate operations. The production efficiencies gained by the consolidation will allow for each boat to be returned to active duty five days earlier with the Shipyard realizing an average annual savings of approximately \$6,020,000/year. Production improvements will also reduce excess overtime by \$2,752,125 and eliminate borrowed labor costs of \$500,000 annually. The new Annex will also be constructed to maximize energy efficiency yielding a 30% reduction in energy costs for the new facility.

WMD-CST Ready Bay addition

\$1,874,000
Waterville, Maine

The 11th Civil Support Team provides a 24/7 response capability for Weapons of Mass Destruction (WMD) incidents or accidents involving Radiological, Biological or Chemical materials throughout Maine and New England. This project provides the necessary ready bay space needed by the team to sufficient ready bay space to secure and protect sensitive equipment from the harsh effects of Northern climate weather and assures them the capability to accomplish their mission. Their ability to assist incident commanders is of vital importance to the incident response infrastructure of the State and region. The unit's ability to maintain readiness is directly related to the proper storage and condition of sensitive, specialized and motorized equipment. This unit as routinely provided standby support for high profile National Security events such as the Democratic and Republican Party National Conventions in Boston, MA and New York City.